FIG.1

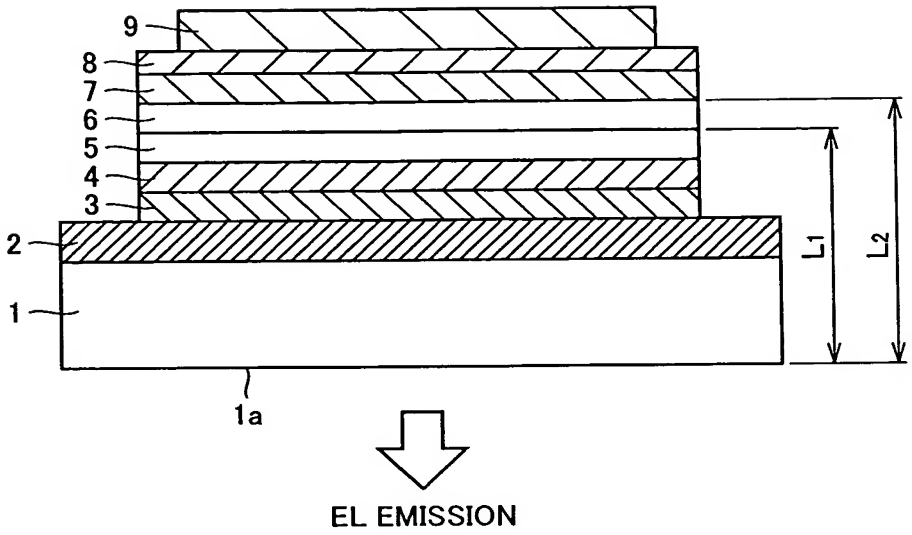
9
8
7
6
5
4
3
2
1
1a
L1
L2
EL EMISSION

FIG.2

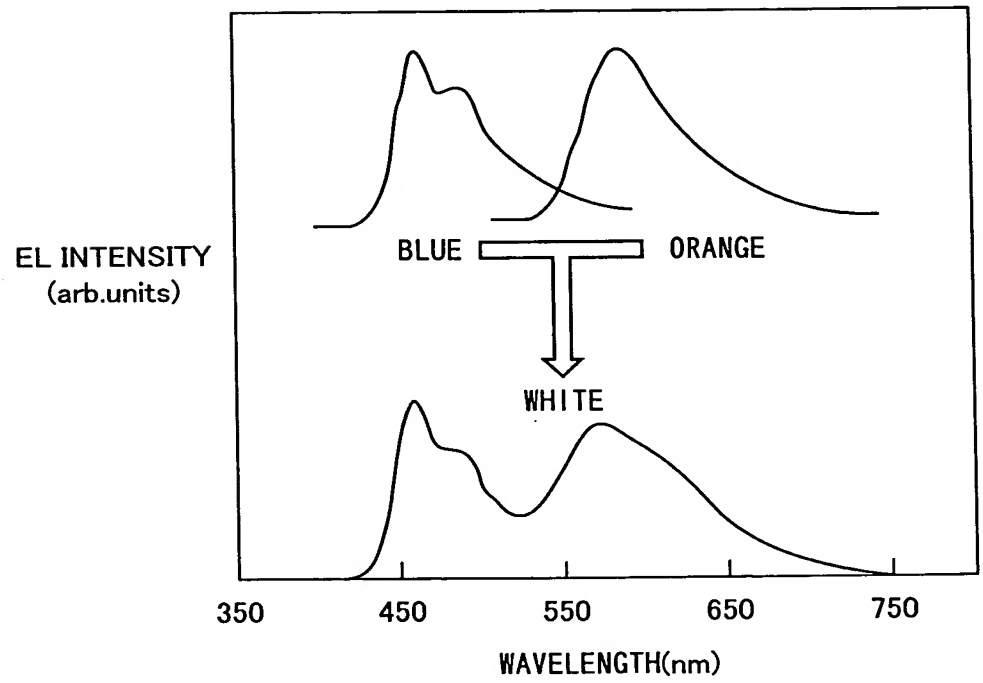
EL INTENSITY
(arb.units)
BLUE
ORANGE
WHITE
350
450
550
650
750
WAVELENGTH(nm)

FIG.3

	GLASS SUB-STRATE	TRNAS-PARENT ANODE	HOLE INJECTING LAYER		HOLE TRANSPORT LAYER	ORANGE EMISSION LAYER		BLUE EMISSION LAYER		ELECTRON TRANSPORT LAYER	ELECTRON INJECTING LAYER/CATHODE
	Glass (mm)	ITO (nm)	CuPC (nm)	CFx (nm)	NPB (nm)	NPB (nm)	DBzR (%)	TBADN (nm)	TBP (%)	Alq3 (nm)	LiF/Al (nm/nm)
COMPARATIVE EXAMPLE 2	0.7	85	10	2	70	10	3%	60	5%	10	1/200
COMPARATIVE EXAMPLE 1	0.7	85	10	2	70	10	3%	20	5%	10	1/200
FIRST EMBODIMENT	0.7	85	10	2	65	10	3%	35	5%	10	1/200

FIG.4

		Glass	ITO	CuPC+CFx	NPB	NPB+DBzR	TBADN+TBP	Alq3	TOTAL OPTICAL FILM THICKNESS	DICIMAL FRACTION OF m VALUE	λ(nm)
COMPARATIVE EXAMPLE 2	FILM THICKNESS (nm)	7000000	85	12	70	10	60	10			
	OPTICAL DISTANCE OF RED	10850000	153	13.2	126	18			10850310	0.528	570
	OPTICAL DISTANCE OF BLUE	10850000	170	19.2	126	18	108		10850441	0.663	460
	OPTICAL DISTANCE OF GREEN	10850000	170	18	126	18	108		10850440	0.490	510
COMPARATIVE EXAMPLE 1	FILM THICKNESS (nm)	7000000	85	12	70	10	20	10			
	OPTICAL DISTANCE OF RED	10850000	153	13.2	126	18			10850310	0.528	570
	OPTICAL DISTANCE OF BLUE	10850000	170	19.2	126	18	36		10850369	0.037	460
	OPTICAL DISTANCE OF GREEN	10850000	170	18	126	18	36		10850368	0.925	510
FIRST EMBODIMENT	FILM THICKNESS (nm)	700000	85	12	65	10	35	10			
	OPTICAL DISTANCE OF RED	1085000	153	13.2	117	18			1085301.2	0.149	570
	OPTICAL DISTANCE OF BLUE	1085000	170	19.2	117	18	63		1085387.2	0.150	460
	OPTICAL DISTANCE OF GREEN	1085000	170	18	117	18	63		1085386	0.831	510

FIG.5

INDEX OF REFRACTION OF EACH LAYER AT EACH WAVELENGTH OF RED, GREEN AND BLUE

MEASURED WAVELENGTH(nm)	Glass	ITO	CuPC+CFx	NPB	NPB+DBzR	TBADN+TBP
570(RED)	1.55	1.8	1.1	1.8	1.8	1.8
460(BLUE)	1.55	2	1.6	1.8	1.8	1.8
510(GREEN)	1.55	2	1.5	1.8	1.8	1.8

FIG.6

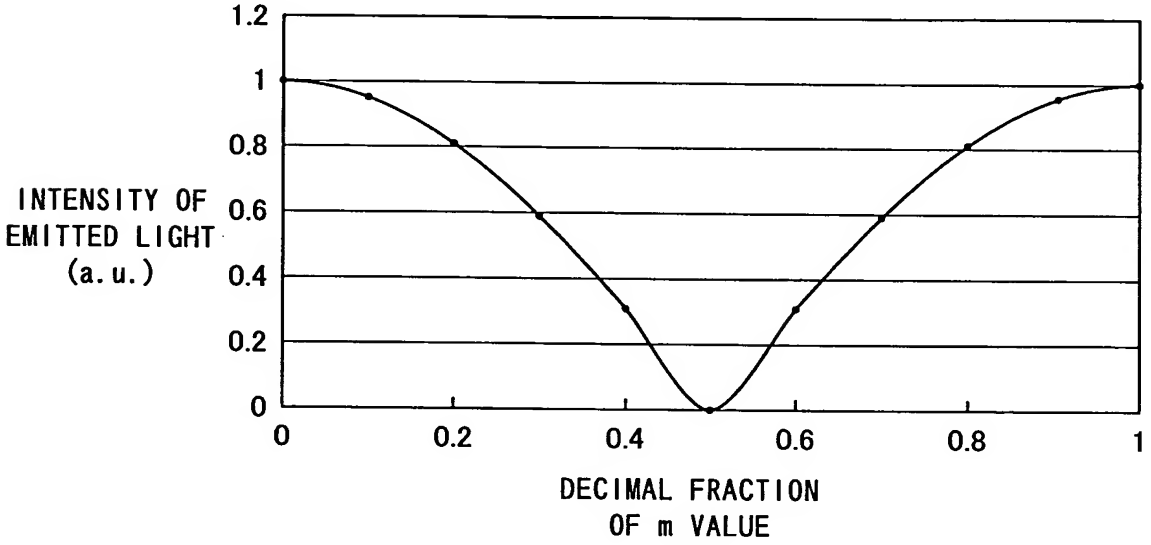

FIG.7

	OPERATING VOLTAGE	CHROMATICITY		LUMINOUS EFFICIENCY
	(V)	CIE X	CIE Y	(cd/A)
COMPARATIVE EXAMPLE 2	6.78	0.25	0.29	8.62
COMPARATIVE EXAMPLE 1	6.58	0.27	0.32	11.16
FIRST EMBODIMENT	6.35	0.29	0.39	13.31

FIG.8

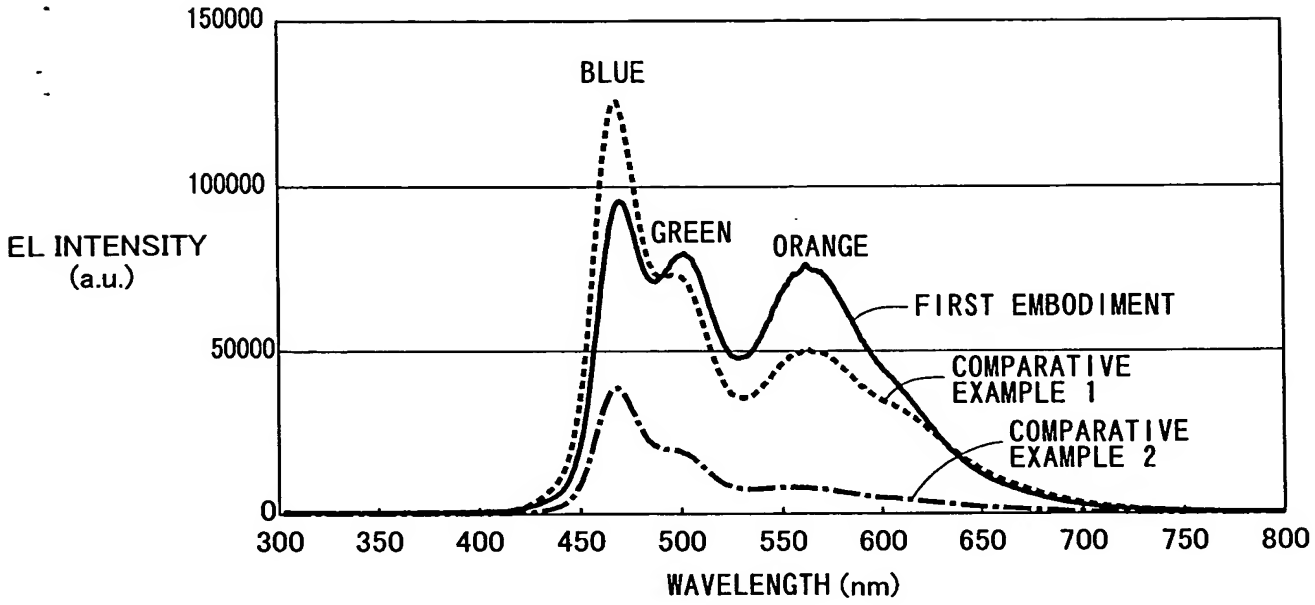
150000
100000
50000
0
EL INTENSITY
(a.u.)
BLUE
GREEN
ORANGE
FIRST EMBODIMENT
COMPARATIVE
EXAMPLE 1
COMPARATIVE
EXAMPLE 2
300
350
400
450
500
550
600
650
700
750
800
WAVELENGTH (nm)

FIG.9

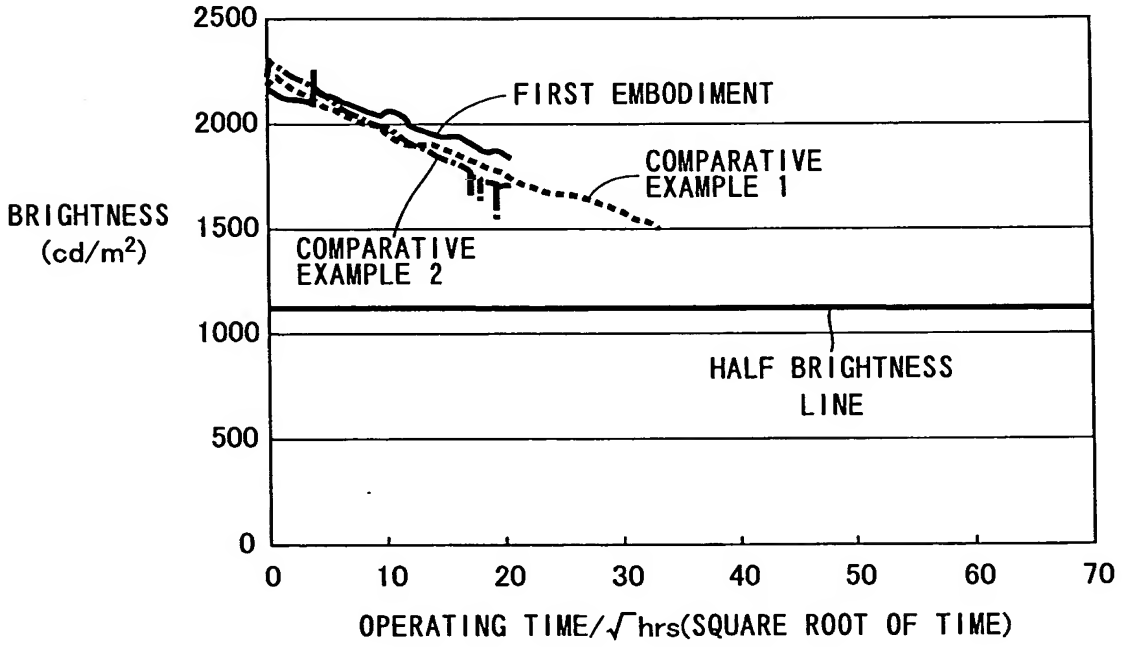
2500
2000
1500
1000
500
0
BRIGHTNESS
(cd/m²)
FIRST EMBODIMENT
COMPARATIVE
EXAMPLE 1
COMPARATIVE
EXAMPLE 2
HALF BRIGHTNESS
LINE
0
10
20
30
40
50
60
70
OPERATING TIME/√hrs(SQUARE ROOT OF TIME)

FIG.10

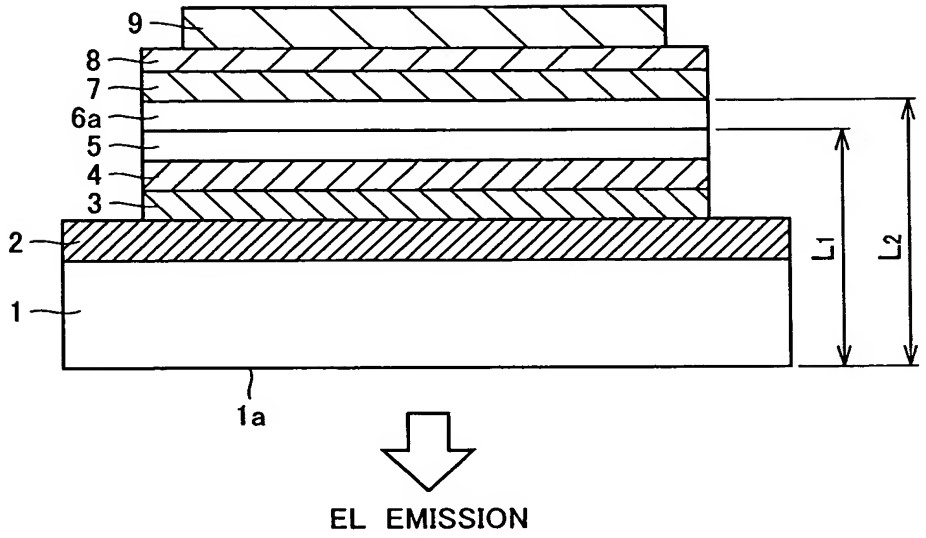

FIG.11

	GLASS SUB-STRATE	TRNAS-PARENT ANODE	HOLE INJECTING LAYER		HOLEL TRANSPORT LAYER	ORAMGE EMISSION LAYER		BLUE EMISSION LAYER		ELECTRON TRANSPORT LAYER	ELECTRON INJECTING LAYER/CATHODE
	Glass (mm)	ITO (nm)	CuPC (nm)	CFx (nm)	NPB (nm)	NPB (nm)	DBzR (%)	TBADN (nm)	TBP (%)	Alq3 (nm)	LiF/Al (nm/nm)
COMPARATIVE EXAMPLE 1	0.7	85	10	2	50	10	3%	95	5%	10	1/200
COMPARATIVE EXAMPLE 2	0.7	85	10	2	40	10	3%	75	5%	10	1/200
SECOND EMBODIMENT	0.7	85	10	2	60	10	3%	75	5%	10	1/200

FIG.12

		Glass	ITO	CuPC+CFx	NPB	NPB+DBzR	TBADN+TBP	Alq3	TOTAL OPTICAL FILM THICKNESS	DICIMAL FRACTION OF m VALUE	λ(nm)
COMPARATIVE EXAMPLE 1	FILM THICKNESS (nm)	700000	85	12	50	10	95	10			
	OPTICAL DISTANCE OF RED	1085000	153	13.2	90	18			1085274.2	0.959	570
	OPTICAL DISTANCE OF BLUE	1085000	170	19.2	90	18	171		1085387.2	0.150	460
	OPTICAL DISTANCE OF GREEN	1085000	170	18	90	18	171		1085386	0.831	510
COMPARATIVE EXAMPLE 2	FILM THICKNESS (nm)	700000	85	12	40	10	75	10			
	OPTICAL DISTANCE OF RED	1085000	153	13.2	72	18			1085256.2	0.833	570
	OPTICAL DISTANCE OF BLUE	1085000	170	19.2	72	18	135		1085333.2	0.680	460
	OPTICAL DISTANCE OF GREEN	1085000	170	18	72	18	135		1085332	0.408	510
SECOND EMBODIMENT	FILM THICKNESS (nm)	700000	85	12	60	10	75	10			
	OPTICAL DISTANCE OF RED	1085000	153	13.2	108	18			1085292.2	0.086	570
	OPTICAL DISTANCE OF BLUE	1085000	170	19.2	108	18	135		1085369.2	0.993	460
	OPTICAL DISTANCE OF GREEN	1085000	170	18	108	18	135		1085368	0.690	510

FIG.13

INDEX OF REFRACTION OF EACH LAYER AT EACH WAVELENGTH OF RED, GREEN AND BLUE

MEASURED WAVELENGTH(nm)	Glass	ITO	CuPC+CFx	NPB	NPB+DBzR	TBADN+TBP
570(RED)	1.55	1.8	1.1	1.8	1.8	1.8
460(BLUE)	1.55	2	1.6	1.8	1.8	1.8
510(GREEN)	1.55	2	1.5	1.8	1.8	1.8

FIG.14

	OPERATING VOLTAGE	CHROMATICITY		LUMINOUS EFFICIENCY
	(V)	CIE X	CIE Y	(cd/A)
COMPARATIVE EXAMPLE 1	5.37	0.36	0.40	8.14
COMPARATIVE EXAMPLE 2	5.15	0.36	0.42	7.42
SECOND EMBODIMENT	6.71	0.35	0.39	10.02

FIG.15